

Meridian Subsea

GYROCOMPASSES

Exceptional performance and accuracy.

The Meridian Subsea uses a Dynamically Tuned Gyro (DTG) element, which provides exceptional performance and accuracy and removes the need for routine maintenance, significantly reducing cost of ownership.

The high accuracy heading output can be maintained for turn rates in excess of 200° per second making the system ideal for operation in even the most hostile subsea environments.

The design of the Meridian Subsea is simple yet highly robust and the fast settle time of less than 45 minutes allows for vastly increased efficiencies over earlier mechanical gyro technologies.

The Meridian Subsea may be upgraded to the Subsea RP with addition of a Roll and Pitch Module. This enables output of roll and pitch data with up to 0.1° accuracy making the unit useful in a wider variety of subsea control, installation or monitoring applications.

Also optional in either the Subsea or Subsea RP models is the addition of an integral battery back-up module. This can cover short-term power supply loss and power supply switch over.



- Maintenance-free DTG element
- Dynamic heading accuracy of $\pm 0.3^\circ$ (RMS secant latitude)
- <45 minutes settling time
- Low power requirement
- Low cost of ownership
- MTBF of 30,000 hours
- Depth rated to 3000m
- Very high turn rate of 200° per second
- Configuration via PC interface S/W
- Optional integral Roll & Pitch module with battery back-up



Meridian Subsea-Gyrocompasses

TECHNICAL SPECIFICATIONS

Heading	Settle point	0.25° secant latitude
	Static accuracy	<0.1° RMS secant latitude
	Dynamic accuracy	<0.3° secant latitude (Scorsby and Intercardinal motion tests)
	Follow up speed	200°/sec
	Settling time	<45 minutes to within 0.70°, from initial 30° offset
Latitude input	Automatic – via RS232 or RS422, NMEA 0183 from SDC software	
Speed input	Automatic – via RS232 or RS422, NMEA 0183 from SDC software	
Latitude compensation	80°N to 80°S	
Speed compensation	0 – 20 knots	
Operating temperature	0° to +45°C (-15° to 55°C with reduced accuracy)	
Storage temperature	-25°C to +80°C	
Gimbal limits	±45° pitch and roll	
Shock survival	10g	
Mean time before failure	>30,000 hours	
Input voltage	24Vdc (18-36Vdc)	
Start-up current	~1.8A	
Dimensions	215mm (dia) x 516mm (h)	
Weight	28.6Kg in air 6.5Kg in water	
Depth rating	3000m	
Accessories included	Operators handbook, transit case, spare connectors	
Standards	BS EN 60945, BS EN ISO 8728 1994, CE Marking, Electromagnetic Compatibility (EMC) Directive	

OPTIONS

Roll & Pitch Module	Accuracy 0.1° or 1% whichever is greater, update rate 50 Hz, TSS1 or HHRP output formats
Battery Back-up Module	Internal auto-recharging batteries giving up to 1 minute back-up power supply
Warranty	12 months international warranty including parts and labour. <i>Due to continuous development, specifications may vary from those listed above.</i>



TELEDYNE TSS
Everywhere you look™

Head Office:
1 Blackmoor Lane,
Croxley Green Business Park,
Watford, Hertfordshire
WD18 8GA, UK
Tel: +44 (0)1923 216020
Fax: +44 (0)1923 216061
Email: tsssales@teledyne.com

Aberdeen:
10 The Technology Centre,
Aberdeen Science & Energy Park,
Claymore Drive, Bridge of Don,
Aberdeen AB23 8GD, UK
Tel: +44 (0)1224 707081
Fax: +44 (0)1224 707085
Email: tsssales@teledyne.com

Houston:
10801 Hammerly Blvd,
Suite 128,
Houston TX 77043, USA
Tel: +1 713 461 3030
Fax: +1 713 461 3099
Email: tsssales@teledyne.com

